Error Intervals

Grade 3 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (42 marks) and have a go at the rest. Higher students: complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 63 marks.

Warm-up

1 x = 7 correct to the nearest whole number. Write down the error interval for x. **[2 marks]**

Answer _____

2 x = 35 correct to the nearest whole number. Write down the error interval for x. **[2 marks]**

Answer _____

3 x = 38 correct to the nearest whole number. Write down the error interval for x. **[2 marks]**

Answer _____

4 x = 50 correct to the nearest whole number. Write down the error interval for x. **[2 marks]**

Answer _____

5 x = 19 correct to the nearest whole number. Write down the error interval for x. **[2 marks]**

Answer _____

Core

6 x = 5.9 correct to 1 decimal place. Write down the error interval for x. **[3 marks]**

Answer _____

7 x = 2.6 correct to 1 decimal place. Write down the error interval for x. **[3 marks]**

Answer _____

8 x = 4.3 correct to 1 decimal place. Write down the error interval for x. **[3 marks]**

Answer _____

9 x = 20 correct to the nearest 10. Write down the error interval for x. **[3 marks]**

Answer _____

10 x = 3.06 correct to 2 decimal places. Write down the error interval for x. **[3 marks]**

Answer _____

Stretch

11 x = 900 correct to the nearest 100. Write down the error interval for x. **[3 marks]**

Answer _____

12 x = 400 correct to the nearest 100. Write down the error interval for x. **[3 marks]**

Answer _____

13 x = 800 correct to the nearest 100. Write down the error interval for x. **[3 marks]**

Answer _____

14 x = 340 correct to 2 significant figures. Write down the error interval for x. **[4 marks]**

Answer _____

15 x = 5.6 truncated to 1 decimal place. Write down the error interval for x. **[4 marks]**

Answer _____

Challenge

16 x = 0.047 correct to 2 significant figures. Write down the error interval for x. **[4 marks]**

Answer _____

17 y = 6.0 correct to 1 decimal place. Write down the error interval for y, then for 2y. **[5 marks]**

Answer _____

18 A mass is 50 g to the nearest 10 g. Write down the greatest possible mass of 4 identical objects. **[4 marks]**

Answer _____

19 n is an integer. $11 < n \leq 15$. List all possible values of n. **[3 marks]**

Answer _____

20 x = 8.5 rounded to 1 decimal place and y = 3.2 rounded to 1 decimal place. **[5 marks]**
Work out the error interval for x + y.

Answer _____